

WHAT IS CLAIMED IS:

1. A positive active material for a rechargeable lithium battery comprising:

lithium nickel manganese oxides; and

lithium manganese oxides,

wherein a weight ratio of the lithium manganese oxides to the lithium nickel manganese oxides is less than 1.

2. The positive active material of claim 1 wherein the lithium nickel manganese oxides is $\text{Li}_x\text{Ni}_{1-y}\text{Mn}_y\text{O}_{2+z}$ ($0 < x < 1.3$, and $0.1 \leq y \leq 0.5$), $0 \leq z \leq 0.5$).

3. The positive active material of claim 1 wherein the lithium manganese oxides is $\text{Li}_{1+x'}\text{Mn}_{2-x'}\text{O}_{4+z}$ ($0 \leq x' \leq 0.3$, and $0 \leq z \leq 0.5$).

4. The positive active material of claim 1 wherein the mixing ratio of the lithium nickel manganese oxides and lithium manganese oxides is 90 to 60 : 10 to 40 wt%.

5. A method of preparing a positive active material for a rechargeable lithium battery, comprising the steps of:

mixing lithium nickel cobalt oxide with lithium manganese oxide, the weight ratio of lithium manganese oxide to lithium nickel cobalt oxide being less than 1;

adding a binder to the mixture; and

heat-treating the resulting mixture at a low-temperature.

6. The method of claim 5 wherein the lithium nickel cobalt oxides

is $\text{Li}_x\text{Ni}_{1-y-z}\text{Co}_y\text{M}_z\text{O}_2$ (M is transition metal, $0 < x < 1.3$, $0 \leq z \leq 0.5$, and $y + z < 1$).

7. The method of claim 5 wherein the lithium manganese oxides is $\text{Li}_{1+x'}\text{Mn}_{2-x'}\text{O}_{4+z}$ ($0 \leq x' \leq 0.3$, $0 \leq z \leq 0.5$).

8. The method of claim 5 wherein the weight ratio of the lithium nickel cobalt oxides and lithium manganese oxides is 90 to 60 : 10 to 40 wt%.

9. The method of claim 5 wherein the heating step is performed at 200 to 500 °C.

10. A positive active material for a rechargeable lithium battery produced by mixing lithium nickel cobalt oxides with lithium manganese oxides, the weight ratio of lithium manganese oxides to lithium nickel cobalt oxides being less than 1;

adding a binder to the mixture; and

heat-treating the resulting mixture at a low-temperature.